

ISTRUZIONI PER L'UTILIZZO DELLA VASCA A TINOZZA IN LEGNO

- Per mantenere ben stretta la struttura della vasca a tinozza in legno vi sono generalmente due o tre anelli di acciaio inox sul perimetro. Durante il trasporto gli anelli potrebbero allentarsi, quindi è necessario controllarli e stringere le viti se necessario.
- Quando si usa la vasca per la prima volta è essenziale riempirla con 90 cm d'acqua. Per gli utilizzi successivi è sufficiente riempirla fino a 80cm.
- Questo procedimento è necessario per forzare l'espansione del legno a causa dell'umidità. Il legno presenta una grande forza d'espansione.
- Le successive due o tre ore sono molto importanti. Durante questo lasso di tempo il legno raggiunge la massima espansione, quindi bisogna controllare il processo e allentare gli anelli d'acciaio inox per permettere l'espansione.
- Per fare ciò, girate le viti in senso antiorario di 180°, una sola volta. Se il legno continua ad espandersi, ripetete il processo. In tutti i casi, due giri da 180° sono sufficienti.
- Quando il legno smette di espandersi o gli anelli sono troppo allentati, stringete questi nella posizione iniziale.
- Le perdite a causa del legno sono normali per 1-5 giorni. Se la vasca è fatta di abete, le perdite si fermano generalmente in un giorno. Se invece è fatta di larice, potrebbero essere necessari fino a cinque giorni.

ISTRUZIONI PER L'UTILIZZO DELLA VASCA IN FIBRA DI VETRO

- La vasca in fibra di vetro deve essere posizionata su una base solida, stabile e regolare.
- Se la vasca non è isolata, è consigliato posizionare il foglio di 5 cm di polistirolo sul fondo della vasca.
- La vasca in fibra di vetro va riempita con 90 cm d'acqua.
- La caldaia deve essere avviata solamente quando l'acqua ha già raggiunto la parte inferiore della canna fumaria. In caso contrario le pareti in fibra di vetro della vasca si deformeranno (invalidando la garanzia).
- Mentre l'acqua si riscalda all'interno della vasca, l'acqua va mescolata di tanto in tanto. È possibile utilizzare la vasca quando l'acqua raggiunge una temperatura dai 38 ai 42 gradi Celsius.
- Prima di utilizzare la vasca, è consigliato l'utilizzo della doccia (l'acqua si mantiene pulita più a lungo). L'acqua va cambiata quando necessario.
- La vasca può essere svuotata allentando la valvola di scarico dopo l'uso.
- La vasca in fibra di vetro dovrebbe essere lavata. È possibile l'utilizzo di tutti i disinfettanti approvati dalle autorità sanitarie.
- Le ceneri possono essere rimosse dal bruciatore con l'aiuto di una paletta e di un rastrello.
- La vasca è protetta da un coperchio.

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Istruzioni per l'uso degli accessori (in inglese)

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BUBBLE SYSTEM

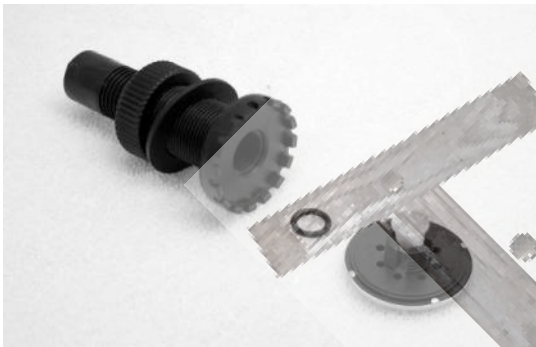


A powerful bubble system that also has a nice massage effect. Also suitable for other Hot Tubs on the market.

You need to know the diameter of the Hot Tub, as well as the number of seats and the thickness of the base.

A special pump blows streams of air into the water through 6 (HT150) special air vents. The system also includes: check valve, hose, connections, pressure switch for the air blower.

Using a hot tub with bubble system in the winter



If you have a hot tub equipped with a bubble system and you intend to use it in the winter then the hose and air jets have to be protected from freezing. When the air blower isn't operating but there is still water in the hot tub then the hose will fill with water all the way up to the check valve.

REMEMBER to start the air blower after 15 minutes maximum, so that the water in the hose does not have time to freeze. When the hot tub is drained of water the water in the hose can be removed by starting the air blower. Let the water drain from the hot tub and repeat the procedure atleast three times.

It is also possible to "close" the air jets so that water cannot enter the hose. Place a plastic plug on the valve cover and an o-ring between the valve housing and cover, as the top left picture shows. When you do this you must not start the air blower. Put the cover back on and tighten it like the lower picture to the right shows. Now water can't enter the hose. O-rings and plugs can be ordered from us.



BUBBLE SYSTEM

WARNING!

The blower must be placed at least 10 cm above the ground in order for the suction to work.

It should be placed horizontally or the valve connection on the air hose should face downwards preventing water getting into the pump.

The blower is controlled by a pressure valve and a pressure switch via an air hose. The power cord from the pump connects to the cord from the coupling box.

Bubble system parts



The hose is placed on the side of the Hot Tub to prevent water from coming into contact with the blower.

The base of the bubble system for the HT150 has 6 holes for air vents, which are screwed into a lower part (see picture). This is suitable for T-connections that are connected to an air hose. Note! Use Silicone or an equivalent material to seal the base of the jet from above as well as the threads. Tighten by hand. The picture below illustrates the connected hose system (Basic).



The air valves are screwed into the base



The connections are pressed/screwed onto the



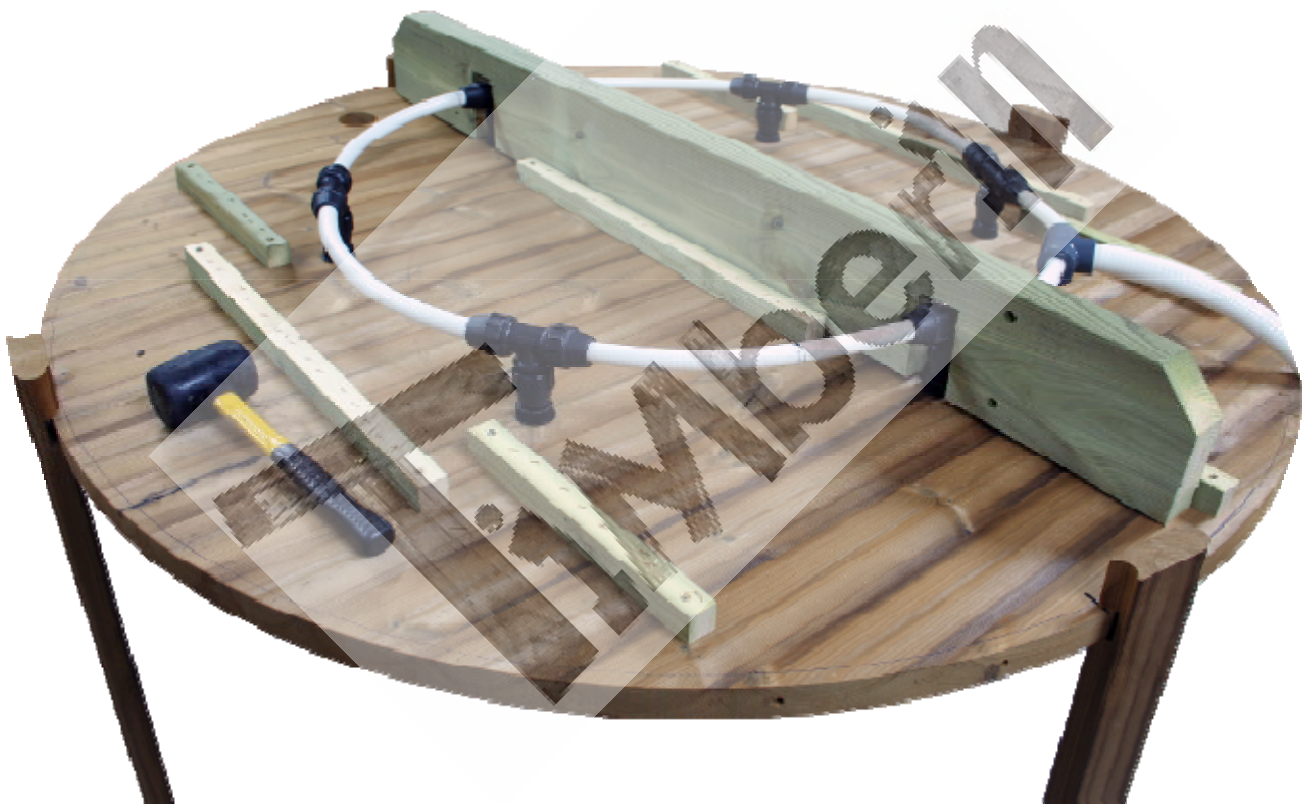
A cover shelf (extra for the DTHS) covers and protects the hose for the blower.

FROST WARNING!

If the Hot Tub is emptied and there is a risk for freezing, it is very important that there is no water remaining in the system. Start the blower in case there is a bubble system installed and let it run approx. for 5 seconds. Repeat this procedure three times.

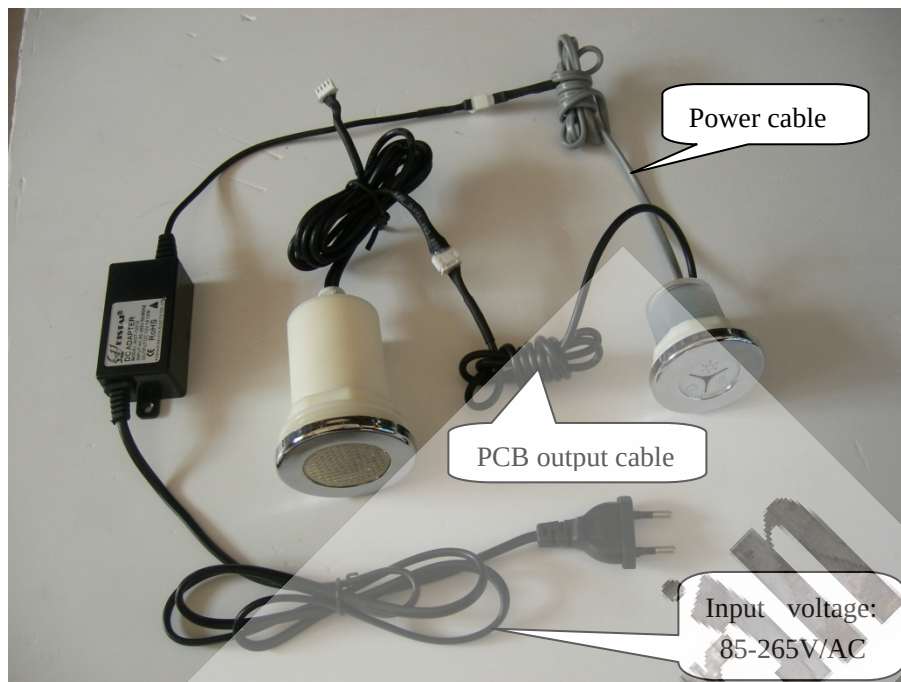


Picture shows “hose kit” assembled and with the middle support having cut-outs for valves / T- connections.



19713238CT - 18X LED LIGHT, CONTROLLER / TRANSFORMER

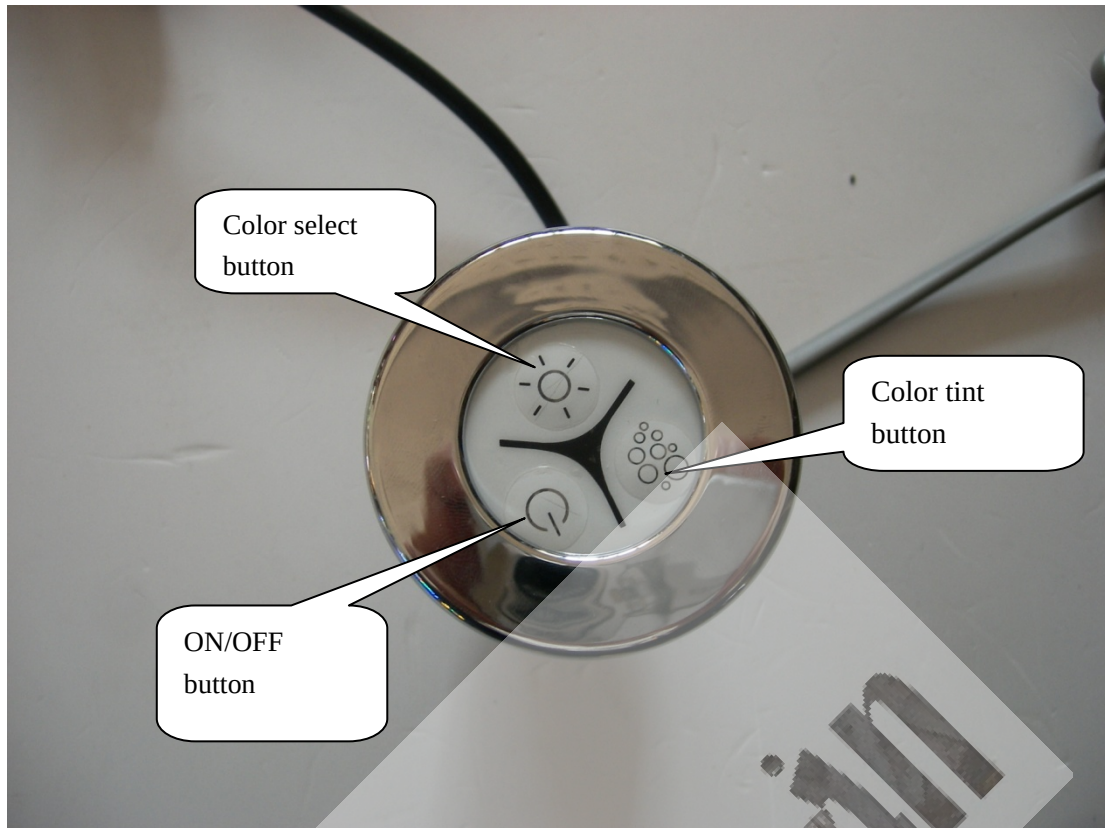
Picture 1: Coupling of accessories



10 lights can be serially connected to one control panel:



Picture 2: Layout of the control panel

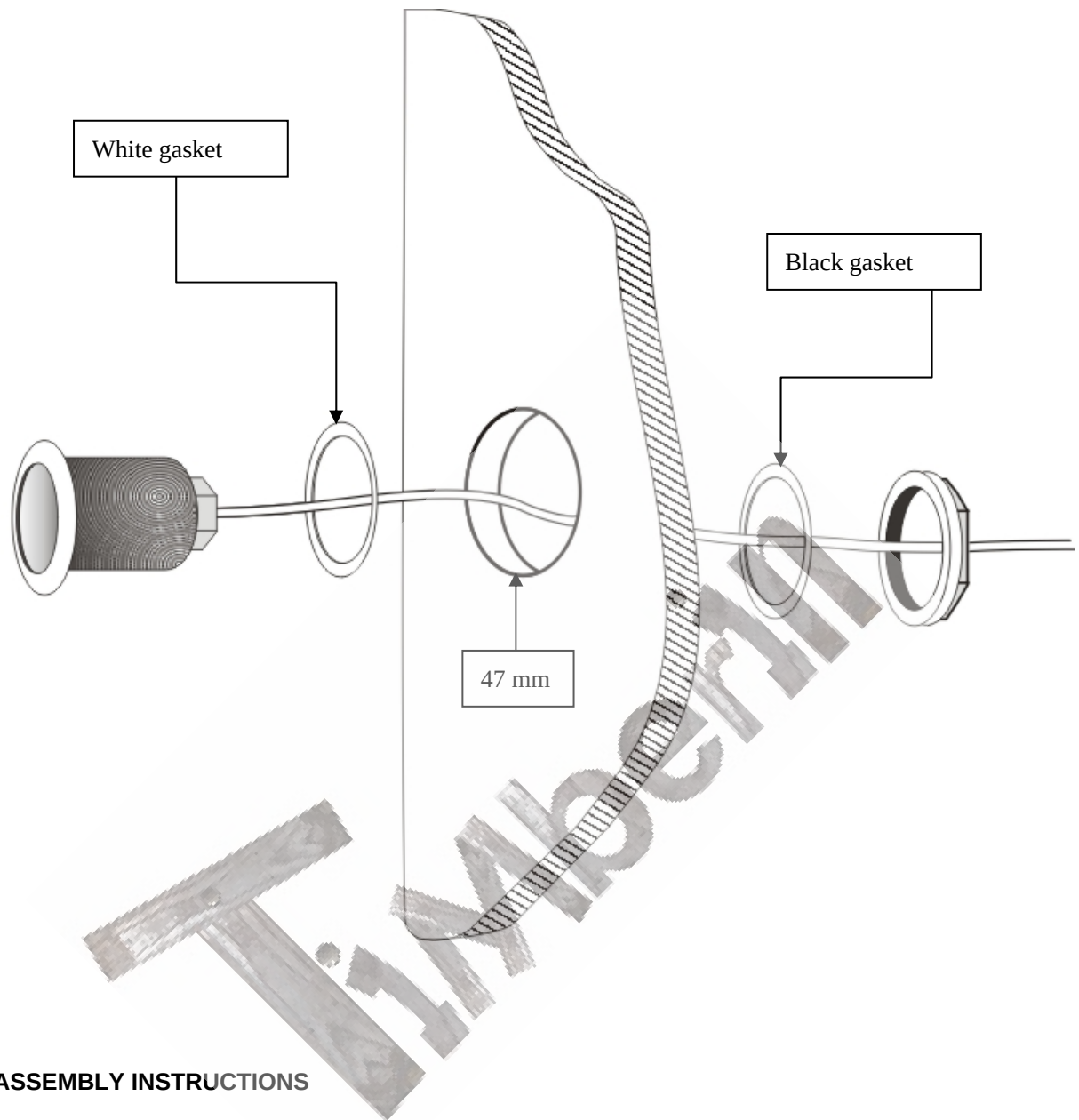


Usage of the light:

1. Connect all couplings and accessories as shown in picture 1, before connecting the equipment to the grid. First press the the "Color select button" or the "Color tint button" and then press the "ON/OFF button" to activate the control panel. **Don't press the "ON/OFF button" first.**
2. To shut down the light, after you've followed the instructions in step 1, press the "ON/OFF button" to turn the light off, press it again to turn it back on.
3. If you press the "Color select button" the light will change between colors in the following order: red, green, blue, red + green, red + blue, blue + green, red + green + blue.
4. If you have pressed the "Color tint button" the colors will automatically change with a 5 second delay.

NOTE: When you connect the light to the grid you have to follow step 1. After step 1 is done do not disconnect the light from the grid again, the control panel is now working normally and the "ON/OFF button" can be used to turn it on and off. **If the electricity is somehow lost then remember to follow step 1 again. Do not use the "ON/OFF" button then, use one of the other buttons.**

INSTALLATION



ASSEMBLY INSTRUCTIONS

Read all information before assembling/usage.

1. Drill a $\varnothing$ 47 mm hole for the light. Refinement might be needed, in that case use sandpaper or a file.
2. The light can be used with wall thicknesses up to 60 mm.

3. Thread the wires through the hole. Assemble with the white gasket under the crown of the lamp. Also use silicone on the surface that will lie against the wall in order to prevent any leaks due to possible irregularities. **NOTE! Remove the crown from the light before beginning assembly, put it back after the silicone has dried.**



4. The black gasket is put on from behind and then the nut is tightened over it. Attach the nut using hand force only and wipe away excess silicone from the inside.
5. The control panel is assembled outside the spa/bath/pool in the same way as the light, but without the use of silicone. Largest diameter is 35 mm, thus use a $\varnothing$ 35 mm hole saw. **NOTE! Applies only if you have a control panel. Warning! The control panel is not be mounted inside the bath or in a place where it will be regularly exposed to water.**
6. Connect the PCB output cable from the light to the control panel.
7. Put the transformer somewhere safe and connect the power cable from the control panel to the transformer.
8. Connect the transformer to the grid and test the light according to the manual.

NOTE! Up to 10 lights can be connected.



**WHIRLPOOL
BATHTUB HEATER
OPERATING INSTRUCTIONS**

**IMPORTANT NOTICE PLEASE READ
THIS INSTRUCTION BEFORE
INSTALLING AND USING THIS
ELECTRICAL EQUIPMENT.**

WARNING



1. ⚠ **DANGER: RISK OF ELECTRIC SHOCK,** Connect only to a circuit protected by a Ground Fault Circuit Interrupter(GFCI).
2. Grounding is required. The unit should be installed by a qualified service representative.
3. This product should be installed by a professional service technician, who is qualified in hydrotherapy bath installation.
4. It's prohibited to cover the instrument while operating.
5. When using at the first time, be sure there is water in heater pipe before starting.
6. This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
7. Children should be supervised to ensure that do not play with the appliance.
8. If a spray head is used, it must be descaled regularly.
9. Do not switch on if there is a possibility that water in the heater is frozen.
10. The outlet must not be connected to any tap or fitting other than those specified.
11. The appliance must be permanently connected to fixed wiring.
12. FOR INDOOR USE ONLY.
13. SAVE THESE INSTRUCTIONS.



This product must not be disposed together with the domestic waste. This product has to be disposed at an authorized place for recycling of electrical and electronic appliances. Resources, and make sure the product is disposed in an environmental friendly and healthy way.

1.General

- This kind of HEATER is especially to be used in Whirlpool Bathtub. The heater will begin to work when the tub is filled in the water and keep the water within a certain temperature as regulated.
- It is very convenient and simple to install and use the heater, but the basic safety precautions should always be followed.

2.Installation !

- The bathtub heater should be connected with pipeline of bathtub circle system, also can be connected with inlet or outlet of bathtub pump, making sure the flow direction of water comply with the indication on bathtub heater.

- 2.1 The heater must be installed horizontally. Dimensions and position of the heater for supporting and fixing refer to Fig.1.
- 2.2 The heater can be installed with inlet or outlet of bathtub pump (Fig.2). (Note: It cannot be fixed by binding..)

-2.3 PVC pipe : (Fig.3)

Cutting a specific length of the PVC pipe from the pump outlet and connect to the nozzle. Note: The pipe connector size should be consistent with the bathtub pipe.

-2.4 Pipe connector: (Fig.4)

Clean the PVC pipe kerf, then use gumwater to joint the PVC tube the connector together. Pay attention to the installation distance between the heater and the pump.

-2.5 Heater installation: (Fig.5)

Separate the connection nut, and joint the PVC pipe to the heater (pay attention to the "O" sealing ring). Make sure the connections are tightly enough. (Note: The connection nut is made by plastic material, overexertion would cause damage.)

- 2.6 The Rating Label must be visible after installation.

- 2.7 Parts containing live parts, except parts supplied with safety extra low voltage <12V, must be inaccessible to a person in the bath.
- 2.8 Class I appliances must be permanently connected to fixed wiring. Part including electrical components except remote control devices must be located or fixed so that they cannot enter the bath.

3. Electrical connection ⚡

- 3.1 The electrical installation should have an all-poles disconnection system with contacts opening at least 3mm.
- 3.2 For continued protection against possible electric shock this unit is to be mounted to the base in accordance with the installation instructions.
- 3.3 The protection of the system should be based on a residual current device (RCD) with a rated tripping current not exceeding 30mA. The supply cable should comply with EMC standards.
- 3.4 The electric connection must be carried out by qualified staff following strictly the "N60335-2-60" standards.
- 3.5 Be sure that the earth cable connection is correctly made.
- 3.6 Wires serving as equipotential bonding conductors shall have a cross sectional area between 2.5mm² and 6mm² and shall be equipped with the terminal suitable receptacle.
- 3.7 After finish the electrical connection, turn on the power, press the reset bottom of the GFCI, the GFCI works and cut the power, then press the reset bottom, the GFCI connect to the power. If the above operations failed, check the GFCI connections, cut the power supply till problem solved and the "reset" appears correct that could use the bathtub.
- 3.8 If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similar qualified persons in order to avoid a hazard.
- 3.9 **CAUTION:** In order to avoid a hazard due to inadvertent resetting of the thermal cutout, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

4. Controls and Operations

- 4.1 The Minimum working pressure 0.035MPa.
- 4.2 After finish the electrical connection, turn on the power, press the TEST bottom of the GFCI, the GFCI works and cut the power, then press the reset bottom, the GFCI connect to the power. If the above operations failed, check the GFCI connections, cut the power supply till problem solved and the “EST” appears correct that could use the bathtub.
- 4.3 If temperature exceed 60℃, rest button will flick out and cut off the power, the thermostat only return to work after trouble-shooting and unscrew the manual reset button cover and push the reset button to its original position.

5. CONTROLS PRIOR TO INITIAL START-UP

- 5.1 Check that the mains voltage and frequency are according to the nameplate.
- 5.2 After installing bathtub heater is finished, it is necessary to check if water leakage happens from pipeline or connectiong: Fill water into bathtub, and have the pump operationg for 30 minutes, making sure water leakage should not happen from circling water system.
- 5.3 If the heater does not start up, try to locate the problem in the table of most common faults and their possible solutions that is provided further on.

6. START-UP

- 6.1 Start elctrically the pump and heater only when the suction and discharge pipes are connected to the corresponding inlets and outlets.
- 6.2 Apply voltage to the motor and suitably adjust the jets to obtain the desired flow.

7.MAINTENANCE AND CLEAN

- 7.1 Our heater for hydromassage facilities do not require any special maintenance or programming. If the bathtub will be idle for a long period of time, it is recommended to disassemble, clean and store it in a dry, well ventilated place. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a sim-ilarly qualified person to a hazard.
- 7.2 Under corrent installation, the water in the pipe will be drained automatically.
- 7.3 Filling with the water up to the position of the bathtub’s nozzle, then operationg 2-3 minutes, at last exhausting the water from bathtub.

8. Technical Data

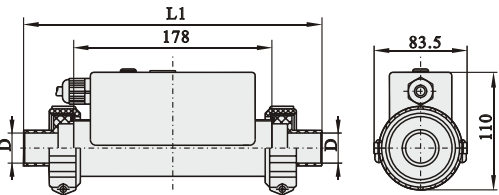
8.1 Technical Parameter:

Model	Power	Current(A)		Bathtub water cubage		Nozzle (PCS)	Remark
		115V	230V	Gallon	Litre		
HA10-R1 HA10-R3	1000	8.7	4.5	60	227	4-6	Standard Single tub
HA15-R1 HA15-R3	1500	13	6.5	100	378	4-8	Single big tub

8.2 Technical Parameter:

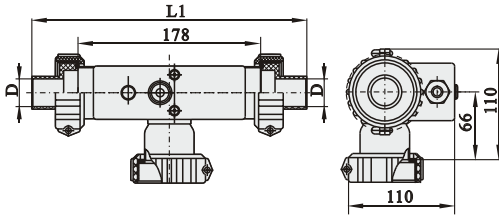
- H
- A
- 10
-
- R
- 1
- Type of heater : “1 ” for I type, “ 3 ” is T type
 - Heating Element Materials: metal components
 - Power code NO.: 10-1000W, 15-1500W
 - Heater distinguish code
 - Heater for bathtub

9.Heater Dimension



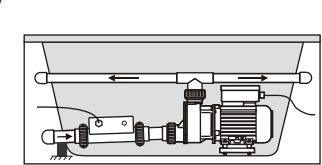
H-R1 Heater dimension

Connector Size(D)				
27	32	33.5	48.5	50
L1	L1	L1	L1	L1
268	268	268	258	258

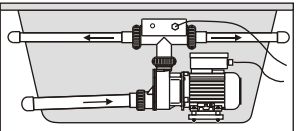


H-R3 Heater dimension

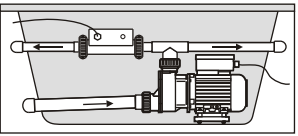
Fig.1



“1” type vacuum switch Heater installing way



“3” type heater installing way



“1” type pressure switch Heater installing way

Fig.2

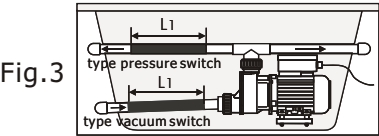


Fig.3

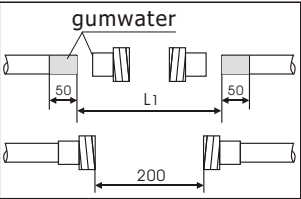


Fig. 4

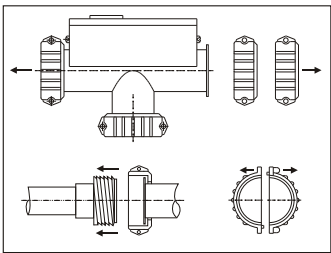


Fig.5

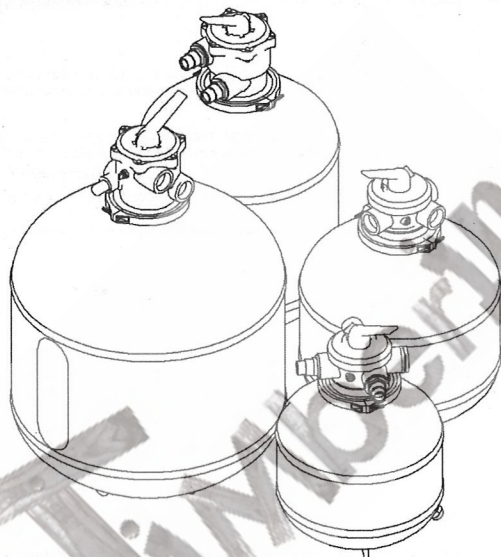
S F 2 5

S F 4 5

S F 6 5

S F 8 5

S F 2 0 0



**MANUALE UTENTE
ISTRUCTION MANUAL
MANUAL DE ISTRUCCION
GUIDE DE L'UTILISATEUR
ISTRUCTION HANDBUCH
ISTRUCTION HANDBOEK
MANUAL DE ISTRUCCION**

ENGLISH

DESCRIPTION OF THE PRODUCT AND APPLICATION FIELD.

These filters are the most reliable nowadays in the market for the cleaning and the maintenance of your domestic swimming pool. They find their application from children to professional's aboveground pools.

Each model is provided of a multifunctional valve that allows the application of the product in many different ways.

In particular the filters do not need special maintenance operations because working directly on the valve they allow their deep cleaning with no need of long and exhausting operations.

Follow carefully what is reported next so that you will use the filter respecting the most common safety rules and remember that it is necessary to have a proper pool pump to be able to use the filter.

Always remember that each operation must be done with plug disconnected and that the pump must never work without water.

APPLICATION LIMITS

- Maximum water temperature : 35°C.
- Maximum pump's flow rate: 20000l/h.
- Sand type: 0.4 – 0.8mm.
- Minimum water temperature: 4°C.
- Maximum pump's prevalence: 20m.

USE AND REGULATION.

To be applied the filters must be connected to a pool pump as the type indicated at the Fig. 1.

Furthermore it is possible to couple the pool pump to a skimmer (superficial aspirator) as shown at the Fig.2 and Fig.11.

Positioning.

Before assembling the filter it is better to decide its final position because when it will be refilled with sand it will be hard to move. The distance of the filter from the swimming pool border should be at least of 3.5mm.

The parts that build your filter.

As you can see from the Fig. 3 your filter is formed of many components.

1. Multifunctional Valve.
2. Soft O-Ring for the sealing between the multifunctional valve and the tank.
3. Closing flange.
4. Funnel.
5. Drain Tap.
6. Tank.
7. Tube with body diffuser.
8. Fingers.

Drain Tap assembling.

Before mounting the filter assemble the special water drain tap. Fig.4.

The components that form the drain tap are:

9. Tap Body.
10. Tap's O-Ring couple. One is to be applied internally and the other one externally.
11. Closing Ring.
12. Lid's O-Ring.
13. Lid.

Filter assembling.

Once the drain tap is mounted on the tank paying attention that all the O-Ring are well applied you can proceed with the Filter assembling. Insert diagonally the tube with the diffuser body inside the filter as shown in the Fig.5 and subsequently mount the plugs on the diffuser body.

Place the diffuser complete with the tube underneath the tank. Refill the tank with water until the first line you can see on the tank Fig. 6.

This procedure give stability to the diffuser.

Place the special funnel on the tank's mouth, paying attention to cover properly the tube, and start to pour the quartz sand (not supplied) into the tank Fig. 7.

Once you refilled the tank with sand until the higher line (around 2/3 of the tank's height) remove the funnel.

Take now the special valve supplied and insert it applying it under the soft O-Ring Fig. 8.

Clean really carefully the tank's neck, place the valve taking care that the tube enter in the central hole. Fig. 9.

Now fix the valve to the tank through the supplied flange Fig. 10. Work with a screwdriver to tight the screws.

Take off the multifunction white valve cap, apply some supplied teflon around the manometer (optional for SF25) thread and then screw the manometer with a key using no strength on the plastic box (Fig.12). Now your sand filter is at your disposal.

Connection to the skimmer and to the pump (Fig. 11).

Important: apply some supplied teflon around the hoses to guarantee a safe sealing.

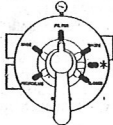
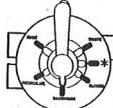
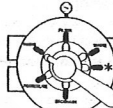
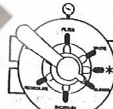
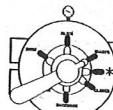
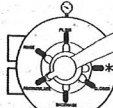
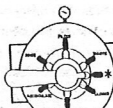
1. **Pressure Tube:** join the higher filter pump connection to the "PUMP" connection, arranged on the 4 or 6 ways valve.
2. **Skimmer Tube:** join the Skimmer connection to the frontal connection of the filter pump.
3. **Return-Tube:** join the connection on the 4 or 6 ways valve marked with "RETURN" to the entrance mouth connection of the swimming pool. Tight with special hose clamps the tubes on the connections.
4. **Backwash-Tube:** to be used when we apply the backwash function to drain the dirty water in a discharge area. For the connection use proper rubber tubes and proper hose clamps.

Refilling the swimming pool.

If you have already connected everything properly you can now start to refill the swimming pool. The water level must reach at least the middle of the Skimmer's suction mouth.

ENGLISH

Use and e functioning of the 4 or 6 ways valve.

Filtration of the Filter. Normal function. The water of the swimming pool, after being through the filter's sand, is back to the pool cleaned. Use this same position for the bottom cleaning too.	
Backwash. The water pass through the sand in the opposite direction and overflow from the drain tube of the backwash. Start it at least once a week for 2-3 min. and after each bottom cleaning.	
Rinse. Through this procedure all the dirty waste are eliminated and the sand is compacted once again. The dirty water overflow from the drain tube of the backwash. Lasting time: around 30 seconds. Start it after each backwash.	
Closed (only for the 6 ways valve). The passage between the filter and the pump is stopped. It is suggested to mount some shutters on the suction pipes and for the return.	
Waste (only for the 6 ways valve). In this position, the water will flow directly from the drain tube. Example: bottom cleaning for seaweeds growing.	
Re-circulate (only for the 6 ways valve). The swimming pool water is aspirated and back to the pool without passing through the filter tank/the sand. This position allows a faster circulation of the water! For example after a hard-impact treatment with chlorine.	
Winter time. The valve is open so that it will not load on the O-Rings. Position for winter storing to be regulated during the autumn time.	

Important

Always switch off the pump when operating on the valve's lever.

ENGLISH

Starting the system.

Before starting the application of the filter make sure this one is well positioned out of the swimming pool under the water level. Check that all the tubes and joints are fixed tightly.

The swimming pool has to be refilled with water until half of the skimmer height. The water must arrive to the pump by natural flow.

Change the 4 or 6 ways valve lever to the BACKWASH position.

Make sure that on the joint "WASTE" a tube that make the water drain is connected.

Start the filter only after this moment.

Start the pump and make a backwash of about 2 – 3 minutes.

Right after this stop the pump and change the valve lever position on RINSE.

Re-start the pump and rinse for about 30 seconds. Stop the pump once again and change the valve lever position on FILTER.

Start again the pump. The system is now doing its normal job. We suggest to start the filter twice a day for 4 or 5 hours. Make the bottom cleaning with the valve lever on FILTER position. After each bottom cleaning or when the pressure level shown on the manometer goes up of 2-3 half nicks the BACKWASH it's necessary.

A rinse of about 30 seconds must follow each BACKWASH.

You can proceed with the bottom cleaning using the proper tools even on WASTE position (only on the 6 ways valve version) to take off all impurities (for example seaweeds) that otherwise could pass again through the filter's sand. In this position the water is aspirated from the pool's bottom and directly leaded on the outside.

After this operation add water to the swimming pool to restore the previous level.

Water cleaning.

The visible impurities are eliminated through the filter, except the seaweeds, the bacterial and other microorganism that can contaminate the pool water. To eliminate these polluting there are special products that must be regularly used and properly measured. Only in this way the pool water remain hygienically cleaned and bright and therefore the bathers are comfortable.

It is essential to filter twice a day for 4-5 hours, to regularly backwash (for 2-3 minutes) and to wash the pool bottom at least once a week so that the pool water remain cleaned!

Bottom cleaning.

To wash the bottom the valve on the filter must be on FILTER position. The tool for the bottom cleaning must be connected to the skimmer with a flexible tube. The pump must be switched off.

Important: completely refill with water the tube that is connected to the tool for the bottom cleaning so that the pump cannot aspire air. No air must enter the filter. If there is air switch off the pump and empty the air from the suction tool.

Slowly move the tool and clean in this way all the bottom. The filter systems with no pre-filter work with a basket Skimmer!

WINTER STORAGE.

At the end of the summer season disassemble the filter and disconnect the tubes. Lead the water outside the tank and the pump working on the draining tap.

Store the filter repaired from the frost.

The sand can stay inside the filter until the next season.

Be really careful when moving the filter because it is very heavy.

The damages caused by the frost are not included in the warranty!

PROBLEMS AND SOLUTIONS.

1. Sand inside the pool.	It is normal to have a little sand inside the pool after it run for a while. After a first bottom cleaning this problem should be solved.
2. Sand even after the first bottom cleaning.	Sand type too thin. Make sure the quality of the sand you purchased it is suitable for this kind of job.
3. Water leakage from the draining pipe.	Make sure the pipe O-Ring is well fixed.
4. General water leakage.	Make sure you tighten correctly all the different points.
5. Too much pressure or very little water flow.	Check there are no obstruction on the Skimmer, pre-filter or tubes. Start a back-wash.
6. Insufficient water flow.	The pump is not trigger correctly. Trigger the pump like illustrated in the instructions of the pump.
7. Cleaning cycles needed more and more closer.	Check the eventual presence of seaweeds in the pool and if needed add a disinfectant or a PH level corrective.
8. The pool water is never bright.	Make sure you choose the right dimensioned filtration system for your kind of pool.

For any other eventual problem please contact your retailer!

MAINTENANCE.

Always remember to disconnect the plug from the socket before any maintenance operation and to do not place your hands in the water if the pump is working.

The filter maintenance is limited to its own cleaning through the backwash.

ENGLISH

SAFETY PROCEDURES.

Never place your hand in the water if the pump is working.
Always connect the pump cable with a 30 mA differential switch.
If the cable is damaged please ask to a specialized technician.
Before operating for any reason the pump always disconnect the plug from the socket.
The application is limited to a domestic use.

GUARANTEE

1. GENERAL ASPECTS.

- 1.1. In accordance with these dispositions, the seller guarantees that the Product corresponding to this Guarantee does not present any conformity defect at the moment of its delivery.
- 1.2. The period of validity of the Guarantee is of two (2) years, calculated at the moment of delivery of the Product itself.
- 1.3. Als een overeenstemmingstekort zou verschijnen en de koper het aan de verkoper tijdens de periode van Waarborg zou meedelen, moet de verkoper het Product herstellen of vervangen.
- 1.4. Voor het geval dat het niet mogelijk zal zijn om het Product te herstellen of te vervangen, kon de koper op de resolutie van het verkoopcontract aandringen.
- 1.5. The parts replaced or repaired by virtue of this guarantee, will not postpone the expiry of the guarantee of the original Product, but will have their own guarantee.
- 1.6. In order the present guarantee to be valid, the buyer will have to bear out the purchasing and delivery date of the Product.
- 1.7. If the buyer would adduce a conformity defect of the Product when more than six months have passed from its delivery, he should bear out also the origin and the existence of the notified defect.
- 1.8. The present Certificate of Guarantee does not limit or prejudice the rights the consumers are entitled to by virtue of national regulations of imperative type.

2. PARTICULAR CONDITIONS.

- 2.1. The present guarantee covers the products which this manual refers to.
- 2.2. The present Certificate of Guarantee is to be applied only in the European Union's countries.
- 2.3. In order this guarantee to be valid, the buyer will have to strictly follow the Manufacturer's indications included in the documents delivered with the Product, as long as this is applicable, according to the range and model of the Product.
- 2.4. If a specific calendar for replacing, maintenance or cleaning of some parts or elements is specified, the guarantee will be considered valid only in case this calendar has been respected.

3. LIMITATIONS.

- 3.1. The present guarantee is to be applied only for sales to consumers, meaning with "consumer" the person who buys the Products for purposes not related to his professional activity.
- 3.2. A guarantee covering the normal wear and tear due to the use of the Product is not granted. As regards parts, elements and/or perishable materials such as batteries, bulbs etc., one will act following what established in the documents delivered with the Product.
- 3.3. The guarantee is not valid in case the Product: (I) has been object of an incorrect treatment; (II) has been repaired, maintained or manipulated by a not authorized person or (III) has been repaired and equipped with not original parts. If the conformity defect of the Product would be due to an incorrect installation or starting, the present guarantee answers for it only if such installation or starting is included in the sale contract of the Product and has been realized by the seller or on his responsibility.

**FIGURE - IMAGES - IMÁGENES - IMAGES
BILDER - BEELDEN - IMAGENS**

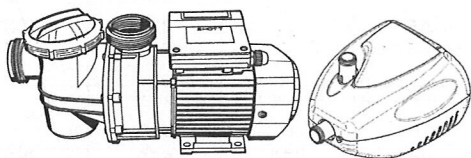


Fig.1

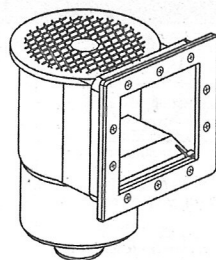


Fig.2

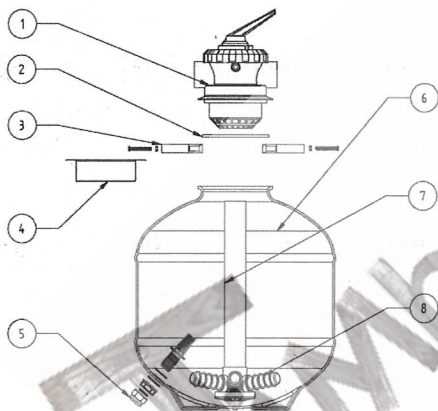


Fig.3

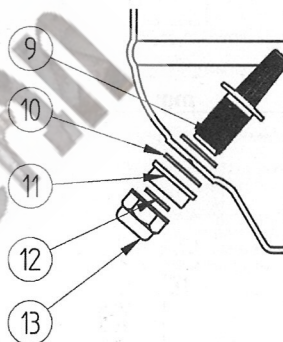


Fig.4

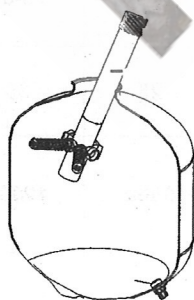


Fig.5

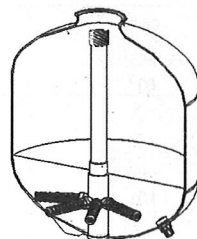


Fig.6

**FIGURE - IMAGES - IMÁGENES - IMAGES
BILDER - BEELDEN - IMAGENS**

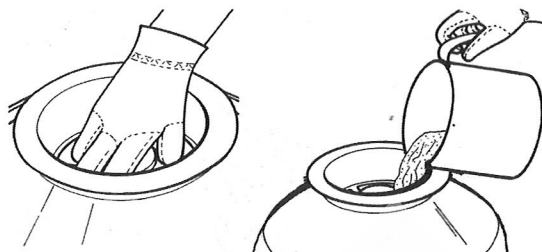


Fig.7

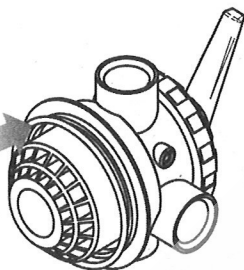


Fig.8

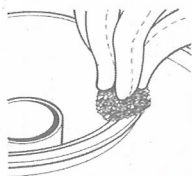


Fig. 9

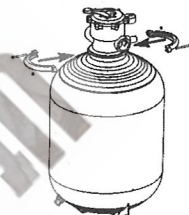


Fig. 10

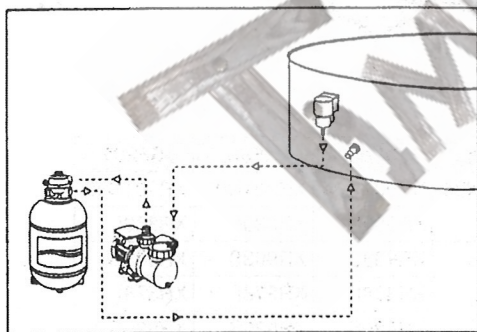


Fig. 11

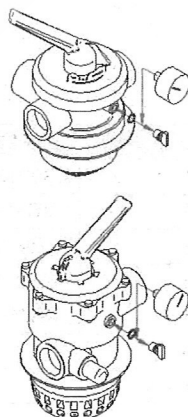
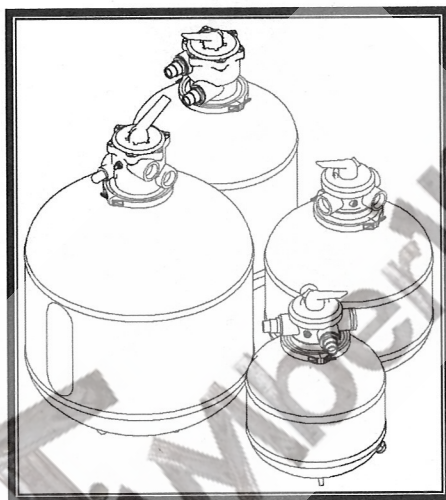
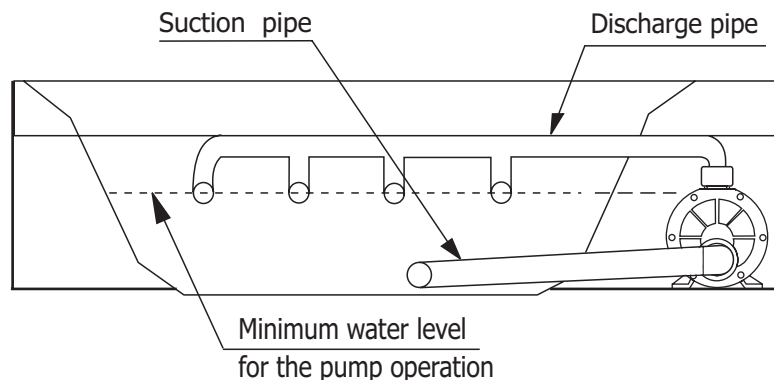


Fig. 12

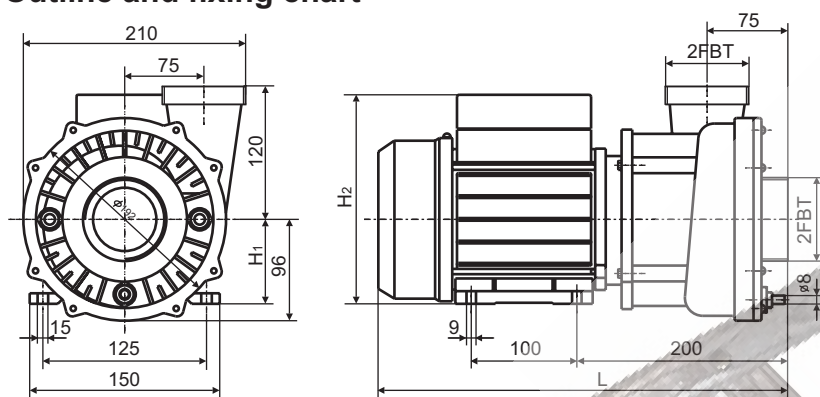


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Installation diagram



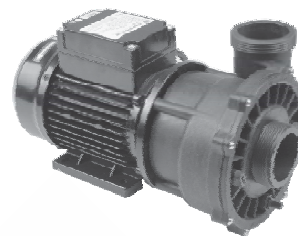
Outline and fixing chart



Model	Qmax (L/min)	Hmax (m)	Power(P _i)		H ₁	H ₂	L	Weight (Kg)
			kW	HP				
LP200	535	13	1.50	2.0	80	198	387	12.5
LP250	600	15.5	1.85	2.5	80	198	387	13.5
LP300	635	17	2.20	3.0	90	215	412	15.5

V/Hz esp: See pump nameplate. liquid temperature: 4°C ~ 50°C
Storage temperature: -10°C ~ +50°C. Relative Air Humidity: 95% Max.

Edition : 2007-07 ④



WHIRLPOOL BATH PUMP INSTRUCTION MANUAL LP SERIES PUMPS

IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

1.READ AND FOLLOW ALL INSTRUCTIONS

2.WARNING To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

3.WARNING Risk of Electrical Shock. Connected only to grounding type receptacle protected by a ground fault circuit interrupter(GFCI). Contact a qualified electrician if you cannot verify that the receptacle is protected by GFCI.

4.CAUTION Do not bury cord. Locate cord to minimize abuse from lawnmowers, hedge trimmers, and other equipment.

5.CAUTION In case the running parts will injure people, don't make the electric pump running before the pipeline have been connected.

6.WARNING To reduce the risk of electrical shock, replace damaged cord immediately.

7.WARNING To reduce the risk of electrical shock, do not use extension cord to connect unit electric supply; provide a properly located outlet.

8.CAUTION This pump is for used for fix-installed bath tub, It is not suitable for swimming pool .

9.Do not install within an outer enclosure or beneath the skirt of a hot tub unless so marked.

10.This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely.

11.Young children should be supervised to ensure that they do not play with the appliance.

12.FOR INDOOR USE ONLY.

13.SAVE THESE INSTRUCTIONS

1.General

These instructions are for correct installation, and optimum performance of the Bath pumps, so they should be read carefully. These are single-stage centrifugal pumps designed to operate with compact hydromassage equipment. They are equipped with a total-emptying system to prevent the discharge of residual liquid in each stopping.

These units are designed to operate with clean water at a maximum water temperature of 50°C. Built of top quality materials, they are subjected to strict hydraulic and electrical controls and are carefully verified. Correct installation is ensured by following these instructions and those of the wiring diagram; otherwise, over loads may be produced in the motor. We decline responsibility for any damage caused by not following these instructions.

2. Installation



The pumps should be installed horizontally, securing them with screws through the holes in the supports to prevent undesirable noise and vibration.

The suction, pipe of the pump should be as short as possible.

The rating Label must be visible after installation. Parts containing live parts, except parts supplied with safety extra low voltage <12V, must be inaccessible to a person in the bath. Class I appliances must be permanently connected to fixed wiring. Part including electrical components except remote control devices must be located or fixed so that they cannot into bath.

3. Pipe Assembly

The suction and discharge pipes should have a diameter equal to or greater than that of the intake tapping of the pump.

Avoid traps as, in addition to affecting efficiency, they impede total overall emptying.

The suction and discharge pipes should not rest on the pump in any case.

Seal all the connectors and unions well. Avoid any dripping on the motor, which would unfaillingly damage it.

4. Electrical connection

The electrical install action should have a multiple separation system with contacts opening at least 3mm.



For continued protection against possible electric shock this unit is to be mounted to the base in accordance with the installation instructions.

The protection of the system should be based on a residual current device (RCD) with a rated tripping current not exceeding 30mA. The supply cable should comply with EMC standards (2). Single-phase motors have built-in thermal protection. The electric connection must be carried out by qualified staff following strictly the "EN60335-2-60" standard.

Be sure that the earth cable connection is correctly made.

Be sure that the equipotential connection between the bath and the pump is correctly made.

Wires serving as equipotential bonding conductors shall have a cross sectional area between 2.5 and 6mm² and shall be equipped with the terminal suitable receptacle.

5. Controls Prior to Initial Start-up



Verify that the pump shaft turns freely.

Check that the mains voltage and frequency are according to the name plate.

The hydromassage assembly should be equipped with a system to prevent the pump from starting up if a minimum water level is not present.

Check the rotating direction of the motor, which should concur with that indicated on the fan cover.

If the motor does not start up, try to locate the problem in the table of most common faults and their possible solutions that is provided further on.

THE PUMP SHOULD NEVER OPERATE DRY.

6. Start-up

Start electrically the pump only when the suction and discharge pipes are connected to the corresponding inlets and outlets. Check that there is no obstacle in the pipes.

Apply voltage to the motor and suitably adjust the jets to obtain the desired flow.

7. Maintenance and clean



Our pumps for hydromassage facilities do not require any special maintenance or programming. If the pump will be idle for a long period of time, it is recommended to disassemble, clean and store

it in a dry, well-ventilated place. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person to a hazard.

Pump can be automotive empty water after correct installation.

When the pump needs to clean (1) filling with water up to level position of bathtub's nozzle, (2) operating 2-3 minute, (3) exhausting water of bathtub after engine stop.

8. Trouble Shooting Guide

SYMPTOM	POSSIBLE CAUSE	CHECK
PUMP DOES NO TURN	NO POWER TO PUMP	-incoming power to the pump? -Is circuit breaker on? -Is GFCL operating properly? -Is the air switch plugged in?
	AIR SWITCH DISCONNECTED	-Is the air switch hose connected to the pump? -Is the air switch hose connected to the actuator button on the tub deck?
PUMP NOT PUMPING PROPERLY	BLOCKAGE OR LEAK	-Jets should be pointed away from the suction inlet so air is not forced into pump suction -Is the in-tub suction inlet blocked or covered? -Is there any debris in the pump housing? -Is there a leak in the piping or the pump?
	LOW VOLTAGE	-Is the proper voltage applied to the pump? -Is there an extension cord being used?

Performance curves

